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Office of the Administrator
c/o Steven Cliff, Deputy Administrator
National Highway Traffic Safety Administration (NHTSA)
Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue SE
West Building, Ground Floor, Room W12-140
Washington, DC 20590-0001

Submitted electronically via www.regulations.gov

Re: National Highway Transportation Safety Administration's (NHTSA) Submission to the Office of Management and Budget for Review and Approval; State Data Transfer for Vehicle Crash Information, Docket No. DOT–NHTSA–2021–0039

Thank you for the opportunity to provide comments on the request for approval from the Office of Management and Budget (OMB) for Notice and Request for Comments; Submission to the Office of Management and Budget for Review and Approval; State Data Transfer for Vehicle Crash Information.[1] The Center for Auto Safety (CAS), founded in 1970, is an independent, member supported, non-profit consumer advocacy organization dedicated to improving vehicle safety, quality, and fuel economy. In 2020, we celebrated 50 years of advocacy for automotive safety and consumer protection.

CAS believes that the proposed collection of information for the State Data Transfer (SDT) is necessary for the proper performance of NHTSA's functions, and that the information will have practical utility. The proposed collection of Police Accident Report (PAR) information by NHTSA for its Fatality Accident Reporting System, Crash Report Sampling System, Crash Investigation Sampling System, Special Crash Investigations, Crash Injury Research programs and other related purposes has our full support, since it is critical to the agency's ability to evaluate vehicle crashes to support rulemaking and enforcement activities. In particular, CAS agrees with NHTSA that the dataset will enable the National Center for Statistics and Analysis (NCSA) to identify existing and emerging highway safety trends and assess the effectiveness of both motor vehicle safety standards and emerging technologies on vehicle and highway safety programs.

[1] Federal Register 10/20/2021, Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; State Data Transfer for Vehicle Crash, https://www.federalregister.gov/documents/2021/10/20/2021-22824/agency-information-collection-activities-submission-to-the-office-of-management-and-budget-for

The proposed enhanced focus on the safety impacts of new and emerging technologies is particularly timely. Many vehicle manufacturers are now offering hands-free driver assistance technology that has uncertain implications for highway safety. Extensions and enhancements to advanced driver assistance systems (ADAS) are imminent. Without accurate and timely empirical data from state crash data collections, the impacts and trends of ADAS technologies such as lane keeping support, automatic emergency braking, blind spot detection, etc. on vehicle safety cannot be objectively evaluated. Automated vehicle prototypes with unprecedented capabilities such as hands-free driving capability, are now being tested on public roads. There is no existing database for establishment of a safety baseline for these features. Tesla's recent experience[2] of recalling an inadequately tested vehicle operating software modification that caused erratic vehicle behavior while using ADAS illustrates the problem.[3] In order for NHTSA to provide adequate warnings to the public of unforeseen dangers, the agency requires timely crash data reporting. The necessity for timeliness is heightened with respect to NHTSA's ability to evaluate critical factors of automation, such as faulty ADAS components or software, fallback to suboptimal controls in the event of a safety-critical fault, or the safety of unplanned emergency reversion of automated vehicle control back to human control. NHTSA data collection and analysis should support needed assessment of those credible potential and currently poorly characterized safety impacts.

There are ways to enhance the quality, utility, and clarity of the information to be collected. Improvements include both scope and frequency of data submissions by the states. Both collected data scope and update frequency have impacts on the quality and utility of those submissions. First, NHTSA must find a way to incentivize those states not enrolled in EDT to join. Second, the current default cadence of annual data collection that may once have been supportable when safety issues were almost exclusively driven by vehicle mechanical design with their long timelines is no longer supportable. Many safety critical changes to modern vehicles are accomplished by software changes that occur out of sequence with model changes. The default State Data System (SDS) protocol's annual cadence is clearly inadequate for finding and remedying emerging safety issues caused by introduction of unprecedented software or other electronic capabilities that can change very rapidly or even iteratively over much shorter timelines.

As a result of the emergence and proliferation of over-the-air vehicle control software updates, it is necessary to enhance NHTSA's Model Minimum Uniform Crash Criteria (MMUCC) and related data collection scope. Evaluating impacts of vehicle software on safety requires accurate knowledge of a vehicle's software and logic bearing component configuration. With the advent of OTA updates, a vehicle's safety-critical software and firmware configuration is no longer uniquely associated with its as-delivered configuration or even service records. OTA updates may have been fully or only partially, or even not at all implemented by a given vehicle. It is essential for crash investigations that the actual safety-critical software/firmware configuration in use at the time of a crash is recorded in the accessible vehicle data. The actual configuration must be incorporated in crash data collected and transmitted to NHTSA to allow accurate analysis of safety impacts and trends.

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[2] NHTSA Recall ID 21V846, October 29, 2021, https://static.nhtsa.gov/odi/rcl/2021/RCLRPT-21V846-7836.PDF

[3] Tesla's recent Full Self-Driving update made cars go haywire. It may be the excuse regulators needed., Washington Post, 11/8/2021, https://www.washingtonpost.com/technology/2021/11/08/tesla-regulation-elon-musk/

Adaptation of NHTSA data collection to enhance the quality, utility, and clarity of the information to be collected is necessary to support vehicle safety analysis, particularly to accommodate the emerging fleetwide adoption and incorporation of novel ADAS and proposed self-driving features. Many of these novel features are software dependent. The control software for such vehicles may be remotely loaded rapidly, automatically, and frequently using OTA software/firmware update technology, potentially without formal notice or full compliance. Understanding if, when, and how such updates are incorporated into active vehicles is essential to analyzing their safety impacts. Timely data collection is an essential prerequisite for the enhanced data analysis needed by NHTSA to identify and correct such rapidly emerging hazards. The MMUCC should be adapted to support this emerging need.

An optimized approach to enhance the quality, utility, and clarity of the information to be collected by NHTSA includes promoting and accelerating Electronic Data Transfer (EDT) adoption by all states. Annual reporting as per the State Data System (SDS) protocol may unacceptably be several generations behind the actual safety-critical software configuration used by modern vehicles. Delayed transfer to NHTSA of vital software/firmware configuration vehicle degrades the accuracy of crash data and analyses dependent on the data. Data collection and analysis latency may also obscure safety defects included in a given software/firmware configuration. The need for timely safety trend data analysis accuracy drives the need to analyze vehicle safety trends within a time scale compatible with vehicle operational control and sensor data processing configuration changes. Annual data collection as per SDT is seemingly too infrequent to provide the needed resolution.

CAS believes that achieving the objective of minimizing the burden of the collection of information on respondents, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, is closely coupled to enhancing the scope, quality, and utility of the information to be collected. The combination of an updated MMUCC that captures better data on new technologies with expanded use of EDT to improve data relevance and reduce data transmission burdens provides the optimal approach. EDT obviates collating, formatting, handling, and shipping of physical media for transmission to NHTSA, and eliminates the biohazard screening, computer virus screening on intake of physical media, and additional handling and distribution of those media within NHTSA. However, it will not be available for collection into PAR unless the MMUCC is adapted for this use and will not be sufficiently timely unless the PAR is electronically transmitted to NHTSA.

EDT also assures the freshest data and enables rapid identification and analysis of unexpected phenomenon such as the recent massive rise in crashes unrelated to ADAS.[4] The value of expected data collection is not theoretical, but can be used to help mitigate crash deaths on U.S. roads, which currently are increasing at unacceptable levels and are expected to exceed 40,000 fatalities this year alone. In other words, upgrading the quality and quantity as well as reducing the latency of crash data collection by NHTSA can assist with determining some of the causes of the current spike and save lives now, as well as in response to future technology deployment.

[4] NHTSA Releases Q1 2021 Fatality Estimates, New Edition of 'Countermeasures That Work', 9/3/2021, https://www.nhtsa.gov/press-releases/q1-2021-fatality-estimates-10th-countermeasures-that-work

CAS also supports NHTSA dataset use to support NHTSA's Corporate Average Fuel Economy (CAFE) program to assess the impact of vehicle mass on safety, while noting that vehicle mass is only one parameter in a comprehensive safety analysis that adequately represents the entire safety scope.

Conclusion

Thank you for the opportunity to provide comments on the on the request for approval from the Office of Management and Budget (OMB) for Notice and Request for Comments; Submission to the Office of Management and Budget for Review and Approval; State Data Transfer for Vehicle Crash Information. CAS fully supports the request. Modest extensions of the current State Data Transfer program will enhance the quality and utility of the data collected as well as reduce the data collection and handling burdens. This is an ideal time to address and correct deficiencies that would otherwise limit the accuracy and utility of safety data as ADAS proliferates and proposals for self-driving vehicles advance.